SECTION I. PROJECT NARRATIVE: STATE OF IOWA TEACHER QUALITY ENHANCEMENT PROJECT

Introduction: Education is Iowa's Most Important Resource

The citizens of Iowa value education. For reasons based on a wide range of cultural and personal values, Iowans have historically proved steadfast in their pursuit of quality education. It is fortunate that this interest continues because today, more than ever, education is the key to Iowa's future.

Unlike some states, Iowa does not possess natural resources that can, with modest effort, be utilized to support a vital state-wide community. While farm land and agriculture plays a valuable role in the state's economy and remains an important link to the state's heritage and culture, economically, agriculture represents just 3.8 percent of the state's gross state product. Surprising to some, Iowa's economy depends almost entirely on manufacturing, finance, insurance, real estate, and other professional services. These sectors require a highly educated workforce. To secure this workforce Iowa must foster education largely from within as the state's population which is slightly fewer than 3 million has proved stable for decades. Iowa largely depends on the talents of people born in the state or who become residents early in their educational life.

Fortunately, leaders and citizens understand that to remain competitive in a modern global economy education represents Iowa's most valuable "natural resource". With quality education there is economic security and the opportunity for every resident to explore his or her full potential is possible.

#### Historical Commitment to Teacher Quality Reform and Today's Critical Need

Iowa has long recognized the importance of new teacher education reform.

However, the need to develop higher quality new teachers who require less "on-the-job" training will be critical to Iowa's PK-12 system in the near future. The basis for this need is the pending turnover that will occur within PK-12 schools during the next ten years.

Today, more than 10,000 of Iowa's 33,000 teachers are age 51 or older and in most cases technically eligible for retirement. Since a comparative few new teachers entered Iowa's PK-12 public school systems in the 1980's and 1990's, this pending "mass retirement" will place profound pressure on new teachers and the programs that provide teacher education. Compounding the numbers challenge, Iowa, like most states, will increasingly experience a student base that reflects a new era of diversity—especially related to English Language Learners. Fortunately, Iowa has been developing strategies enabling teacher education programs to address the needs of Iowa's future teachers.

Iowa has a long history of high quality practitioner preparation. In the November 1997 report, *Doing What Matters Most: Investing in Quality Teaching*, Linda Darling-Hammond used Iowa as an example of quality preparation, licensure, and teaching. The report highlighted a concern across the nation, as of 1991, "...nearly one-fourth (23%) of all secondary teachers did not have even a minor in their main teaching field and the least qualified teachers were most likely to be found in high-poverty and predominantly minority schools and in lower-track classes...."(Darling-Hammond, 1997, page 2). States like Wisconsin, Iowa, Minnesota, and Montana have at least 80% of teachers in most fields with full certification in their teaching field...[as contrasted with]...states like

Alaska, California, and Louisiana, where generally no more than 60% hold certification plus a major in their field (Darling-Hammond, 1997, pages 28-29). In the United States Department of Education's Title II Report for 2002-03, Iowa has 100% of its teachers fully licensed. Darling-Hammond cited Iowa as one of 12 states with a tradition of professional teacher policy and state professional standards board (Darling-Hammond, 1997, pages 13-14).

Iowa can be proud of the long history of systematic improvements in practitioner preparation and licensure. It should be noted the practitioner preparation approval is housed under the Iowa Department of Education and the State Board of Education, while the Board of Educational Examiners is an autonomous body that has the authority for practitioner licensure. The two bodies collaborate to create a consistent set of standards. Changes that have been implemented during the past 20 years include:

1988: Practitioner Preparation Program Approval Rules were revised and strengthened

- 1999: Practitioner Preparation Program Rules were revised and aligned more closely with the NCATE (National Council for Accreditation of Teacher Education) program approval standards and the work of INTASC (Interstate New Teacher Assessment and Support Consortium).
- 2001: The licensure requirements for new teachers and the practitioner preparation program approval rules moved to a performance based preparation and licensure system (aligned with the INTASC standards).

- 2002: Iowa developed standards for the Iowa Standards for School Leaders

  (ISSL) for preparation programs (based on the Interstate School Leaders

  Licensure Consortium's Standards—ISLLC) and required all of the

  administrative programs to move to a performance based system.
- 2002: The Iowa Board of Education Examiners and Department of Education created rules to allow an alternative form of practitioner preparation and licensure—the Teacher Intern Program.
- 2003: Training was required for all administrators on the systematic evaluation of teachers, based on the eight Iowa Teaching Standards. Administrators must earn the evaluator license in order to serve as principals in Iowa. Administrator licensure requirements were revised to reflect the ISLC standards).
- 2004: The Department of Education was granted the authority to approve programs offered in Iowa by out-of-state institutions.

### A. SYSTEMIC CHANGE FOR NEW TEACHER PREPARATION THROUGH PARNTERSHIPS

The mission for the State of Iowa Teacher Quality Enhancement program is to reform and enhance the teaching capacities of Iowa's future teachers so that every Iowa child will be afforded the opportunity to experience the highest quality educational program that it is possible to provide.

Key to this proposal is the establishment of partnerships that will bring systemic change to Iowa's 31 teacher preparation programs. A team of leaders from the Iowa Department of Education, Iowa Community Colleges, Iowa Regents and private four-year institutions, Iowa Board of Educational Examiners, PK-12 school boards, PK-12 administrators, and community stakeholders have come together to thoughtfully examine and develop a path to reform the teacher education experience.

When formulating this proposal, special attention was given to secure goals and objectives which represent true systemic change—that is change that will bring real and long lasting reforms to the educational systems that train and educate Iowa's future PK-12 teachers. As the working group examined and considered alternatives, it was determined that the following goals represented the most critical areas for reform and that the outcomes that result from programming to achieve these goals would bring lasting change to teacher education programming. Also considered were the practical implementation issues associated with new and groundbreaking programming. Many ideas were thoroughly examined and sifted in order to provide a practical plan that will make significant, systemic, sustainable changes to Iowa's teaching programming.

#### Four inner related goals were identified by the member of the team:

Goal One: To strengthen teaching content areas so that the skills of new secondary and middle schools teachers will be reformed and strengthened in teaching content areas. Key to this goal is developing and implementing models for new secondary teachers to better teach reading and writing in the content areas as well as to

enable middle school teachers to better teach in the content areas of reading, math and science.

Goal Two: To improve teaching for diverse populations by better preparing new teachers to support and teach diverse student populations specifically targeting English Language Learners. Iowa is becoming increasingly diverse. But that diversity remains concentrated in relatively few locations such as in the Des Moines area Empowerment Zone and other scattered communities. While that trend is temporary, it remains difficult in the near to medium terms for students entering teaching to experience the challenges and opportunities presented by a diverse classroom where English is a second language. Workshops that provide new educational opportunities plus electronically linked teaching classrooms will enable new teachers to develop these needed skills before they begin their careers.

Goal Three: To instill reform and new teacher improvement through analysis by making teacher education programs more effective through rigorous analysis of candidate and program performance data. Iowa's educational community is rightly sensitive to the independence and privacy associated with evaluations and data sharing, however a needed reform that will provide permanent change relates to making data available to teacher education institutions through a common data base. A system that is accountable and which provides a basis for information sharing to improve new teacher performance will be developed.

<u>Goal Four:</u> Meeting future challenges through collaboration that will prepare new teachers to meet the educational challenges for the twenty-first century. This goal

emphasizes the need to build a consensus on articulated and aligned content standards and skills. Improved communication, collaboration, and articulated and aligned content standards and skills which is accountable to Department of Education will serve to achieve this goal.

#### **Teacher Quality Partnerships**

To realize the purpose of this grant, a coordinated partnership was created among the following stakeholders: Iowa Department of Education, Iowa Board of Education Examiners, School Administrators of Iowa, Iowa Association of School Boards, Iowa State Education Association, Iowa Association of Community College Arts and Sciences Administrators, Liaison Advisory Committee on Transfer Students, Iowa Association of Colleges of Teacher Education, Iowa Association for Middle Level Education, The Office of Governor—State of Iowa, and Iowa Business Council.

# B. COMMITMENT TO REFORM BY GOVERNMENT, EDUCATION, AND GREATER COMMUNITY

To realize the purpose of this grant, a coordinated partnership was created among the following stakeholders: Iowa Department of Education, Iowa Board of Education Examiners, School Administrators of Iowa, Iowa Association of School Boards, Iowa State Education Association, Iowa Association of Community College Arts and Sciences Administrators, Liaison Advisory Committee on Transfer Students, Iowa Association of Colleges of Teacher Education, Iowa Association for Middle Level Education, Iowa Rural and Urban Enterprise Communities, The Office of Governor—State of Iowa, and

Iowa Business Council., and Iowa Business Council. As indicated in the attached and forthcoming letters of support, there is broad agreement and deep support for this proposal.

#### C. CLEAR AND MEASURABLE GOALS AND OBJECTIVES

The four interrelated goals listed in section A supported by seven objectives listed in the work plan will bring systemic, sustainable, measurable reforms to Iowa's new teacher education programs. The goals were designed to demonstrate the four clear steps that will accomplish the mission of this proposal which is to reform and enhance the teaching capacities of Iowa's future teachers so that every Iowa child will be afforded the opportunity to experience the highest quality educational program that it is possible to provide.

The objectives represent concrete steps that when completed ensures the goal for which they were designed will be accomplished. Great effort was given to insuring that each objective is measurable. Each objective was developed and selected to be measurable utilizing proven quantitative and qualitative methods techniques. These techniques have been developed by the evaluation consultant who will provide verification of program effectiveness. Their plan for measurement utilizes pre and post-survey tools, interviewing, trend data and analysis, focus groups, and general reporting. Documentation of the research plan, methodology, and capacity of the evaluation firm is provided in the appropriate section.

#### D. ENHANCING CURRENT STATE PROGRAMS AND REFORMS

The mission, goals, and objectives of this proposal were designed to enhance current efforts to strengthen Iowa's capacity to train and educate new teachers for PK-12 schools as part of a more comprehensive view of statewide education initiatives. The impetus for this project was the vision to create a seamless transition from a prospective teacher's coursework and field experiences, whether beginning at a community college or a four-year institution, through the professional preparation requirements, into and through the initial years of teaching, and finally, upon recommendation of supervising administrator, into a standard Iowa teaching license and the on-going career professional development.

Initiatives developed within the state in the past five years that support aspects of that progression include the following: 1) the development of the new Iowa Teaching Standards and the evaluator training and evaluation requirements for new teachers seeking their standard teaching license; 2) the requirement that teacher education programs evaluate prospective teachers on performance indicators using state and national teaching and teacher education standards; 3) the implementation of a statewide mentoring and induction program for new teachers in all public (and some private) schools; 4) the implementation of the Professional Development Model, a system devised to assure continued professional development of career teachers; and 5) the development of the Iowa Content Network, a valuable tool for prospective teachers as well as inservice teachers in accessing research on scientifically-based methods of teaching.

Although all five of these initiatives are part of the systemic view that includes this project, each of them relates to this project in a direct way: 1) the evaluation of new

Department of Education that individual programs can access for program review and improvement; 2) the thorough assessment/evaluation of prospective teachers required of the teacher education programs by the state will be more efficient and effective as a result of the electronic systems that will be put in place; 3) the collaboration focus of this project will more closely link the realities and requirements that prospective teachers experience in teacher education programs with those they will experience as new teachers; 4) the work of this project will facilitate a smooth transition from pre-service to in-service teaching, within the parameters of the Professional Development Model; and 5) additions to the Iowa Content Network will result from the project work under the first goal of strengthening teaching in the content areas.

Statewide initiatives currently under development will directly interact with this proposal. They include the following: 1) the expansion of content area assessment for prospective teachers; 2) the High School Reform initiative; 3) and three initiatives underway to write/rewrite rules regarding Teacher Program Approval, Out-of-State Program Approval, and Program Approval for Alternate Routes to teaching. The collaborative work between teacher education faculty and middle/secondary teachers in Goal #1 will inform the content area assessment work and will contribute to the High School Reform Initiative. Internal Teacher Education Program assessment, institutional reporting to the Iowa Department of Education, and state reviews of Teacher Education Programs (all assisted and improved as a result of the implementation of electronic assessment systems under this project) will contribute information and methodology

useful in the writing/rewriting of the above mentioned program approval initiatives. The results of these initiatives will become state policy.

### E. INSURING DIVERSITY IN THE PERSPECTIVES INCORPORATED INTO THE OPERATION OF THE PROJECT

Iowa has a tradition of local control in educational decision-making. That tradition is strong among the thirty-one public and private four-year institutions that have Teacher Education Preparation Programs and equally strong among the fifteen community colleges strategically located throughout the state. It is strong among the over 350 school districts and hundreds of private schools that serve Iowa communities. Iowans take pride in their independence, and resist being forced to do anything, but also have a practical understanding of the need for collaboration.

Everyone recognizes that the stakes are high, and the goals, worthy. But these same three strengths of local control and independence, combined with a tradition of educational excellence, have also been the sources of weakness in Iowa: the four-year institutions, the community colleges, and the K-12 districts and private schools have not considered it necessary or desirable to coordinate their efforts effectively in preparing new teachers. At the State level, there are governance issues and funding mechanisms that encourage parallel, not collaborative efforts. Each entity believed that it could go it alone, that each knew what was best, and since the State of Iowa's citizens had not seen poor results, there was no real impetus to change. No Child Left Behind has highlighted the proposition that better preparation of teachers results in better education for K-12 students. The TQE Partnership for improved pre-professional training of teachers

proposes to unite the efforts of all partners under the leadership of the Department of Education of the State of Iowa and the Board of Educational Examiners, and the Governor's Office with the public, private and community colleges and the K-12 districts, Area Education Agencies, and private enterprise partners and community patrons statewide to common understandings and common effort.

This effort began with one community college calling one four-year private college asking for interest in pursuing a federal grant to improve seamless transition between the two institutions and thereby to improve teacher education in both content and in clinical practice at both levels. A meeting was held in March, 2004, with the two institutions and several teacher education community college faculty to discuss local needs, which quickly expanded to vision that would include all teacher preparation candidates throughout all of Iowa. In June and July, 2004, a series of meetings were held at the Iowa Department of Education with representatives from the PK-12 consultants, a representative from the Board of Educational Examiners, the Pre-Professional Programs Evaluator for all 31 teacher education programs in Iowa, the acting Director of the Department of Education, the Bureau of Community Colleges, with the private and community college partners.

With the input of all participants, it became clear that there were several initiatives on improving teacher education preparation that were already in place, and several more were being initiated. The most striking aspect of those discussions was that at each level of education, and across all institutional entities, good efforts leading to reform were occurring, but the groups did not know each other's work. Once all

stakeholders began looking at the various pieces, two things became very clear: 1) that further reforms were also going to be needed beyond the province of any one entity to accomplish; and, 2) that there was no mechanism in place for assessing the overall effectiveness and impact of these "silo" efforts.

From August, 2004, through December 1, 2004, the steering committee for this grant gathered input and feedback from an ever-widening group of participants: PK-12 administrators and career teachers, union representatives, technology and business consultants, content specialists, teacher preparation specialists, mentoring and induction specialists, English Language learners specialists, Arts & Sciences and Education faculty and administrators in both two-year and four-year institutions including the three Regents, the Bureau of Educational Examiners, assessment consultants, representatives of the Iowa State School Board Association, the Governor's Office, and evaluation experts and especially from the leadership of the Iowa Department of Education in both the PK-12 and community college divisions. The grant was shaped from this input, areas of high need were identified, possible outcomes were delineated, and evaluation and assessment intervention points were introduced.

To ensure that the grant retains this diverse perspective throughout its operation, the original steering committee of stakeholders will continue to be the leadership group meeting at least monthly, and Goal # 3 calls for semi-annual meetings and an annual summit of this broad base of the Iowa education community to present feedback and offer continued input.

The Iowa Teacher Quality Enhancement Partnership for improved preprofessional training and retention of ever-higher quality new teachers who positively affect student achievement has become our vision, a truly collaborative vision, one which, in turn, will mean improved public and private educational opportunities for educators and youth of our state for decades to come.

#### F. A PROJECT BASED ON UP-TO-DATE KNOWLEDGE

The team that developed this proposal considered many research-based sources prior to final design. Key members of the team hold terminal degrees in education and pursue a rigorous research program. A large body of research data has informed the organization of the proposed project. The following summary indicates key sources from the professional literature. Complete citations appear in the bibliography included in the Appendix.

- Teacher quality. Current research strongly indicates that quality of teaching is the
  most important variable affecting student achievement. The entire Teacher
  Quality Enhancement program proposed here is based upon this research-based
  concept and places the quality of new teachers as the center of all activities.
  (Flanders, 1960; Mitzel, 1960; Traina, 1999; Borders, 2004; Schacter and Thum,
  2004)
- 2. Quality teacher preparation. The corollary to quality teachers is quality teacher preparation, which is the intended outcome for the majority of activities in the proposed project. A growing body of research provides ample evidence that

enhanced instructional skills and increased content-area knowledge on the part of teachers are essential to students' academic achievement. The proposed project will help strengthen teacher preparation in Iowa by developing innovative models for teacher education in the content areas of reading/writing, math, and science; preparing new teachers to work effectively with English Language Learners (ELL); assessing pre-service and new teachers; and using assessment to inform teacher education program change. (Cruickshank, 1987; Darling-Hammond, 1997; NCTAF, 1996; Young et al., 2001)

- 3. <u>Instruction and curriculum.</u> Peer-reviewed research and theory underlies the activities described in the grant proposal. Instruction and curriculum strategies, models, and professional-development activities supported by grant funds will be carefully reviewed beforehand by the project steering committee, in consultation with expert practitioners and academic authorities, and thoroughly assessed at the conclusion of the grant period or during the grant period if deemed appropriate by the Project Director and/or the Project Steering Committee. All instruction and curriculum activities must:
  - Directly address student achievement in an academic area
     (deep content knowledge in reading, math, science, etc.)
  - Have a research base that provides evidence of improved student achievement across settings, time, and a variety of student populations.

- (Bransford, Brown and Cocking, 1999; Calhoun, 1994; Kennedy, 1990, 1999; Joyce and Showers, 2002; Schmoker, 1996; Slavin and Fashola, 1998)
- 4. Teacher assessment. The professional literature provides evidence of a positive correlation between scores on standards-based teacher evaluation systems and student achievement measures. Standards-based evaluation of pre-service teachers will be the cornerstone of the assessment systems funded by this project. Evaluations of pre-service teachers and new teachers will be used in program assessment for teacher education programs and provide input to future programmatic changes. (Borman et al, 2004)
- 5. <u>Dispositions of teachers.</u> In the past 20 years a growing number of educational researchers have addressed the role of professional dispositions in teachereducation curricula. Although there continues to be some resistance to the notion that professional dispositions can be taught, the field is moving toward a consensus that the development of professional dispositions is a significant element in teacher education programs. (NCATE, 2000; Nieto, 2000; Yost, 1997; Reiman and Thies-Sprinthall, 1998; Dee and Hankin, 2002)
- 6. <u>Distance Learning.</u> Several components of the proposed project will employ educational technology in the development of new strategies for enhancing the quality of teacher-education programs. Project activities addressing the needs of English Language Learners (ELL) will make extensive use of technology to permit close observation of effective teaching in the ELL classroom, regardless of the geographical distance between the observer and the ELL classroom. Another

project component – the creation of a feedback loop to report new-teacher performance data to teacher-preparation programs – is to be based on a statewide electronic data-gathering and dissemination network. In both its ELL and feedback-loop components, the proposed Teacher Quality Enhancement project is expected to demonstrate innovative – and replicable – uses of technology in teacher preparation. (LePage, 1996; Beck and Wynn, 1998; Cosgrove, 1998; Schlagel et al., 1996; Snell, 2001)

- 7. Collaborative: Research has shown that increased student achievement requires the collective efforts of educators. Collaboration between teacher-preparation faculty and P-12 educators is a critical component of this project. The collective efforts of teacher-preparation faculty and P-12 educators along with the participation of teachers and administrators at the pilot P-12 schools are essential to the project's success in reforming teacher-education so as to incorporate innovative approaches to teaching in such content areas as (1) secondary-school reading and writing and (2) middle-school reading, writing, math, and science, as well as in the preparation of new teachers to work with English Language Learners. (Elmore, 2000; Joyce and Calhoun, 1996; Joyce and Showers, 2002; Newmann and Wehlage, 1995; Rosenholtz, 1989; Slavin, 1996; Wallace et al, 1984, 1990)
- 8. <u>Technical support</u>. The Teacher Quality Enhancement project proposed here will have ongoing technical assistance. The Grant Project Director, Technology Coordinator, or another approved provider will be available throughout the period of the grant to help with implementation and maintenance of technology needed

for project activities. (Joyce and Showers, 2002; Rosenholtz, 1989; Showers, 1982, 1984)

9. Evaluation. Formative evaluation ensures the regular and systematic collection of data relevant to stated goals (student progress, implementation of innovations, etc.). Summative evaluation provides information about the cumulative impact of a planned change on student learning. Data collected during the formative evaluation process may also be used in the summative evaluation. The services of a highly regarded university-based evaluation team have been enlisted for the proposed project. Findings of summative and formative evaluation processes will be disseminated to educators and other stakeholders throughout the state of Iowa and also shared with educators elsewhere. (Calhoun, 2001; Hertling, 2000; Yap et al., 2000)

NOTE: Additional research sources are listed in the appendix section of this proposal.

#### II. SIGNIFICANCE OF THE PROPOSED PROJECT

### A. PROMISING NEW STRATEIGES OR APPROACHES TO THE WAY NEW TEACHERS ARE PREPARED

There are several innovations worthy of consideration related to this proposal.

While the proposed program emphasizes implementation, there is a significant development component that will bring new innovations into pilot programs and then into practice. In Goal #1, the new programming will be developed to reform the teaching

content areas for new secondary and middle school teachers. In Goal #2, an innovative technology link will be established to bring new teachers into direct contact with diverse classroom situations that will foster a new experienced based competency that currently, from a practical prospective is impossible to replicate utilizing current techniques.

Another innovation that results from this proposal relates to a new tracing system that will develop a data base from which to track the progress of new teachers related to practitioner preparations. All 31 teacher education institutions (institutions already responsible to report data to the Iowa Department of Education) will be enabled to provide detailed, uniform, and usable data to the Iowa Department of Education—again a tool that currently is not available to our programs.

New teacher preparation will also be impacted by the true integration of teacher education programming that will allow the student to transfer from one Iowa higher education institution to another including between community colleges and four-year institutions. This impacts the quality of programming but perhaps more importantly, provides new opportunities for students who are community bound to develop an alternative educational path that leads to a quality teacher education experience without risk of a gap in preparation.

Another innovation that will lead to enhanced quality in the way teachers are educated relates to the statewide forums capped by an annual summit which brings teacher education programs, supporting state agencies and boards, the business community, parents, citizens, teachers, students, and other interested stakeholders together with the purpose of improving effectiveness of teacher education.

# B. PROJECT OUTCOMES THAT LEAD TO IMPROVEMENT IN TEACHING QUALITY AND ULTIMATELY ENHANCED ACADEMIC STANDARDS

The outcomes specified in the project work plan point to the following themes:

- Enhanced skills related to teacher content areas will translate into sustained and measurable increase in student learning
- Enhanced skills that lead to better teaching in diverse student population—including those who are English Language learners
- A feedback system that will allow teacher education programs to utilize data to enhance academic standards
- Programs that enable candidates to better meet standards and goals of teacher education programs.
- Increased course consistency which will enhance the uniformity of new teacher quality
- New ways to initiate techniques to assess ethical and professional behaviors that will lead to higher quality teaching
- New and better aligned content standards to be used in Iowa's teacher education programs
- Inclusion of Community Colleges in aspects and activities

It is believed by the proposal team that these outcomes will significantly lead directly to improvements in teaching quality and student achievement as measured against rigorous academic standards.

### C. PLANS TO INSTITUTIONALIZE THE PROJECT AFTER FEDERAL FUNDING ENDS

Much thought was given to the "what happens when the grant runs out?" dilemma that most grant projects face. The proposal team was determined to develop programming that either does not require further funding once the objectives have been achieved OR design programs that have an ongoing funding requirement so that appropriate local and state entities will be able to incorporate said programs into their own budgets.

Objectives that deal with strengthening and reforming programming, streamlining curriculum, and developing new programs will be adopted by teacher education institutions and will not require additional funding. Once these activities have occurred, the goal has been achieved and the nature of the activity is permanent.

However, goals in this proposal that relate to workshops, conferences and summit, and enhanced technology will require new funding sources after year three. These program should provide sufficient value as identified by the stakeholders so that they can justify developing internal funding streams to support year four, five, and beyond. The project in its totality provides for a more complete and seamless transition among all

levels of higher education and strengthens partner relationships which will encourage additional areas of educational cooperation.

One of the jobs the grant project director must consider is to insure that the communication and reporting mechanisms which are specified in the grant are effectively implemented so as to ensure that school districts, teacher education districts, state officials, other public stakeholders, and teacher education students realize that these programs are worthy of continued support. The quality of these activities and subsequent outcomes inspire confidence within the project team that all elements of this grant proposal will be institutionalized after year three.

### D. THE EXTENT TO WHICH PROJECT STRATIGIES, METHODS AND ACCOMPLISHMENTS ARE REPLICABLE

The proposal team believes that all elements of this project are replicable to other states. Nothing in the grant is so exclusive to Iowa that other states could not consider them for adoption. Perhaps the key activity that makes this useful is that the proposal provides for website development, regular publication of materials and findings, conference reports and papers, as well as the potential for new teacher candidates and other stakeholders from other states to attend and become involved in many of the programs that are a result of this project.

Also, key participants will present findings from this project at national conferences such as the National Association of Community Colleges for Teacher Education Preparation, The Chair Academy, The League for Innovation in Community

Colleges, The American Association of Colleges for Teacher Education. The extensive research base especially related to professional develop and content should provide evidence for other teacher education programs as they address similar needs.

#### III. QUALITY OF RESOURCES

### A. EXTENT TO WHICH SUPPORT AND RESOURCES ARE SUFFICIENT TO ENSURE A SUCCESSFUL PROJECT

The project team in consultation with a wide range of stakeholders concluded that in order to maximize the opportunity for success, a thoughtful and thorough approach must be taken related to detailing and providing structures to ensure that adequate resources are provided. The first major decision is to provide for two key professional positions: 1) Grant Project Director, and 2) Technology Coordinator. The person selected for the position of Grant Project Director is key to the success of the program. As noted in the work plan, most activities require action by the Director. He/she will be responsible for ensuring collaborative teams meet and pursue action, pilot programs receive support and organization, workshops and summit meetings are scheduled, promoted, and supported; results of the various activities are written and distributed, and that new systems are established in a way to insure sustainability.

The role of Technology Coordinator was developed by the project team in order to provide resources and expertise that will enable the technology aspects of this proposal to be enacted. Key areas where the skills and abilities of this person are important relate to the establishment of the data collection system to better track data for the Iowa

Department of Education, and the technology supporting the linking of teacher education students with classrooms which experience diversity. It is also important to have experience on staff to deal with the technology challenges of developing effective web design.

As indicated in the work plan, this grant proposal places high demand on the ability of staff to coordinate and manage large meetings and conferences. These demands plus the administrative requirements of recording, publishing, website design/management, management of assessment data, and distributing large volumes of materials requires the resources of three persons each serving in a position of administrative assistant. To ensure sustainability and continued stakeholder support requires an infrastructure of personnel and equipment to perform all required tasks in a timely and professional manner. The project plan and narrative budget were prepared with this important need in mind.

### B. BUDGET COSTS THAT ARE REASONABLE AND JUSTIFIED IN RELATION TO THE OUTCOMES OF THE PROJECT

As was mentioned earlier, many elements of this project require a substantial commitment of resources. However, the payoff for this investment is an improved standard of new teachers that will impact PK-12 education for years to come. As was mentioned in the introduction portion of this proposal, a large group (baby boomers if you will) of teachers have served Iowa's schools for the past 20 years. This group will soon be leaving local schools and be replaced by a much younger and less experienced group of teachers. The return on the investment of just over \$6 million dollars of federal

funding will be a new, highly educated and trained teacher workforce that will truly carry Iowa's schools for the next generation. The premise of this grant guarantees that the investment of resources into substantial programs such as what is proposed here offers the best and most efficient method of reforming and strengthening the teaching capacities of Iowa's new teachers.

# C. A MATCHING SHARE THAT DEMONSTRATES A SIGNIFICANT COMMITMENT TO THE SUCCESSFUL COMPLETION AND CONTINUANCE OF THE PROGRAM

As noted in the budget narrative, the Iowa Legislature has committed well over \$2 million dollars for in-kind contributions. This support is based on committed state funding that is supporting the mentoring and induction program which was part of the Teacher Quality legislation passed in 2001. The State of Iowa has implemented successful mentoring and induction program requirements for beginning teachers as part of landmark legislation for Teacher Quality in 2001. The legislation calls for each of Iowa's 367 school districts and 12 area education agencies to provide a two-year mentoring and induction program. Iowa's area education agencies have developed programs and support strategies for local districts. Iowa's 31 teacher preparation institutions are incorporating teaching standards, upon which the Mentoring and Induction program is based into their coursework. The Iowa legislature has allocated up to \$2.4 million per year for the Mentoring and Induction program statewide every year since 2001 as part of the statewide Teacher Quality initiative. This initiative continues to have bi-partisan support from the Iowa legislature and from the Governor's Office. This

funding will be used as match for the purposes of this grant application. The following information provides detail related to the program:

#### **Beginning Teachers**

- \* Salary minimum
- \* Evaluation (Comprehensive Evaluation)
- \* Must meet teaching standards using evaluation to determine eligibility for license
- \* Mentoring and Induction provided for all 1st and 2nd year beginning teachers
- \* Funds are appropriated for districts/Area Education Agencies based on the number of 1st and 2nd year teachers (\$1,300 per mentored teacher)
- \* Area Education Agencies provide technical assistance and training for mentors
- \* A model plan has been developed to assist districts in their work

#### Mentoring and Induction

- \* 4th year of program 100% of districts have a mentoring plan
- \* At the end of the 2nd year the beginning teacher evaluator makes a decision to move the teacher from an initial license to a standard license
- \* A 3rd year of mentoring is available to beginning teacher who needs additional assistance to move to a standard license. The district must pay for the program.

This commitment to programming similar in mission to the mission of this proposed program speaks to the ongoing commitment by policy makers, educational professionals, and communities that Iowa must continue to develop, enhance, and support program such as that proposed in this program.

#### IV. QUALITY OF MANAGEMENT PLAN

#### A. EXTENT TO WHICH MANAGEMENT PLAN ACHIEVES PURPOSE

(Please refer to the Work Plan document for a complete picture of the management plan for this proposed program)

As indicated in the work plan, the first goal is to strengthen teaching contents areas. This will be accomplished through collaborative teams which will prepare models for new programming that will be implemented into teacher education programs. The timeline for implementation is September, 2007 which the team feels is realistic given the nature of bringing diverse groups together to explore new areas of content. The Grant Director will be key to the management of this objective. A series of pre and post-test surveys will determine if the outcome of graduating teacher education students who will possess improved skills related to teacher content areas which will in turn translate into sustained and measurable increase in student learning.

This goal is based on a review of results of the Iowa Test of Basic Skills for the past several years which indicates generally lower achievement statewide in the middle grade students (6-8) in the areas of reading, math, and science. Attention must be paid to the possible reasons for this lower achievement and possible solutions to improve the

academic achievement of students in the middle grades and thereby increase their chances for success at the secondary level.

As noted in the work plan, groups will be funded statewide in a model that partners teacher education professionals, arts and science faculty, and middle level educators to address the need to improve middle level education in Iowa. Each action group will be comprised of, at a minimum, representatives from one four-year institution, one community college, one secondary school, and one middle school. The job of the action groups will be to: 1) determine the underlying problem(s) causing lower ITBS scores at the middle school level statewide; 2) propose a solution(s) intended to increase middle level student achievement; 3) pilot said solution(s) within both the middle level partner schools and the teacher preparation partners; and 4) evaluate the results for dissemination to other institutions statewide. In response to the No Child Left Behind legislation, the curricular focus will be reading, math, and science.

Action plans will address both current middle school practice and preparation for teaching in a middle school situation; this dual focus will necessitate implementation of compatible solutions in partnering middle schools and institutions of higher education.

One aspect of this portion of the proposal will be the addition to the Iowa Content

Network of reviewed scientifically based studies focused on teaching middle school students.

An invited steering committee will consist of middle level educators, other PK-12 educators, teacher preparation educators, and Department of Education consultants, with the advice of community, parent, business, and government representatives. The Steering

Committee will assist the Grant Director in setting parameters and guidelines for Middle Level Grant applications, awarding grants, monitoring progress, and evaluating outcomes. The Grant Director will oversee the project and work with a facilitator on each team who will be the local organizer/leader. Grant funding will support the full-time Grant Director and one part-time facilitator for each action group. Expenses and honorariums will be paid to Action Plan participants.

The same process will be duplicated for the groups developing models for preparing secondary teachers to better teach reading and writing in the content areas. Similar collaborative groups will problem-solve the concerns regarding content area reading/writing, will develop two models, field test those models in secondary classrooms and, if the models prove success will integrate them in to teacher preparation methods coursework.

The second goal of the program is to improve teaching for diverse population—especially related to teaching English Language learners. This will be accomplished by a series of workshops. A review and validation of workshop evaluation by facilitators plus a survey and/or interview of education professors/instructors and student teachers to document the receipt, use, and effectiveness of technology links will determine if the outcome of enhanced new teacher skills that support and teach diverse student populations especially those students who are English Language Learners is met.

This goal is predicated on the need that the preparation of teachers to work with English Language learners has been targeted by the Iowa Department of Education as an area of need for the state. Demographics indicate an increased number of English

Language learner students in the P-12 schools; these students are experiencing low achievement on standardized measurements. (2004 Condition of Education in Iowa) Due to historically small numbers of English Language learner students in Iowa, teacher preparation has provided minimum background for new teachers in addressing this population; the needs of the P-12 schools clearly indicate the value of adding this area of focus to teacher preparation in Iowa.

A current initiative through the Iowa Department of Education, funded by federal Funds for Improvement of Education monies, has provided summer workshops at three sites statewide for practicing teachers. The focus of the workshops has been to prepare P-12 teachers to work with English Language learner students, particularly in the areas of reading, math, and science. A needed corollary would be the expansion of such a program to teacher education professors and their teacher candidates. Including teacher education professors in this training would magnify the impact of the investment: each teacher education professor would incorporate the concepts into his/her coursework and, in effect, train a much larger number of future teachers than could be accomplished with the current grant. The expansion of the grant to teacher candidates who are preparing to student teach would accomplish the intent of preparing new teachers to work with English Language learner learners.

The second objective of this goal meets a logistical/geographic need: most teacher education programs in the state of Iowa are not found in geographic proximity to school districts with English Language learner populations. The majority of new teachers in Iowa, therefore, are licensed and begin teaching with little specific background in

working with English Language learner learners. The use of Direct-feed I P video conferencing would allow teacher education students the opportunity to observe directly and interact with English Language learner students in classrooms in other parts of the state, strongly enhancing their knowledge of best practice in working with English Language learner students.

Plan for Objective #1: The Funds for Improvement of Education Grant provided three one-week workshops for practicing teachers in the summer of 2004; this grant has been continued to fund workshops for the summer of 2005. The expectation is that this funding will be continued, enabling the Iowa Department of Education to continue providing this valuable service to practicing teachers.

The monies from the Total Quality Enhancement grant would allow the expansion of this program to include teacher education professors and teacher candidates preparing for their student teaching experience. This fund would provide stipends and pay expenses for two additional members of the Funds for Improvement of Education Grant grant committee. The committee, in return will schedule three additional workshops for each of the summers 2006-8 and oversee evaluation of the workshops. Monies from the Total Quality Enhancement grant will support the additional workshops and will pay expenses and stipends for teacher educators and student teachers chosen through an application process. If funds for Improvement of Education Grant monies are continued through 2008, Total Quality Enhancement participants will attend workshops with Funds for Improvement of Education Grant participants, providing a more enriched experience for all involved: practicing teachers, teacher education professors and student teacher

candidates. Under the Total Quality Enhancement grant, workshops will be funded for three summers.

Plan for Objective #2: Teacher education programs that send participants to the workshop may apply for funds to implement Direct-feed I.P. video conferencing with classrooms that serve English Language learner students. Education professors will be expected to incorporate the content of the workshop and the use of the technology into their college/university classrooms to facilitate for their students a better understanding of the issues confronting English Language learner students and their teachers. Under the grant, technology will be funded in conjunction with the workshops each year of the grant. Grant money will support cooperating teachers in training them to use the technology and in coordinating work with education professors who will be "invited" into their classrooms via technology.

The Grant Director and the Grant Technology Director, with the advice of the Grant Steering Committee, will issue and review applications for participation in the workshop and requests for technology each year of the grant. Formative evaluation of the workshops and implementation will be done annually by the Evaluation Center at the University of Iowa in conjunction with their current evaluation of the FIED project. Chairs of Teacher Education Programs will be responsible for applications and implementation of workshop content and use of technology. The Grant Director, with the assistance of the Department of Education English Language learner consultant, will recruit exemplary classroom teachers as partners for Teacher Education Programs and will provide training/support for these teachers as they work with the these programs. The

Grant Technology Director will supply technical support in implementing the video observation and conferencing.

Goal #3 provides for reform and improvement through rigorous analysis of candidate and program performance data, resulting in more effective teacher education programs. The first objective to achieve this goal is to develop a comprehensive feedback loop that will link PK-12 personnel with teacher education programs. This leads to developing the capacity to utilize assessment data on student teachers and recent graduates in teacher education institutions and to implement higher and more uniform standards. The second objective helps teacher education programs develop the capacity to gather, manage, and analyze performance data in order to improve teacher preparation. A third objective is to create a more streamlined system of teacher education that will enable students to more seamlessly between institutions without fear of mismatched coursework or gaps that leave the new teacher ill prepared for the classroom. The final objective focuses on the improved assessment of ethical and professional behaviors in teacher education candidates to ensure to a higher degree their success in the classroom.

Surveys and interviews of student teachers, new teachers, and principals; plus documentation of data on candidate progress related to standards, trend data, program changes, and state-wide recommendations; and documented analysis of institutions participating in the test program and achievement of course compatibility; and surveys and/or interviews with Department of Education Chairs, other faculty and administration, and teacher education students will determine the outcomes of this part of the program.

Finally, pre and post-surveys, written ongoing commentaries, interviews, and focus groups for teacher education candidates, Department of Education Chairs, and other faculty and administration, as well as a one-year follow-up will be conducted to assess implementation and effectiveness.

The 1<sup>st</sup> objective of Goal #3 is predicated on the state of Iowa requirement that

Teacher Education Programs assess their programs in several ways. One important aspect
of this assessment is feedback from graduates of the programs and, when possible, the
administrators in the building where the graduates teach. Feedback from new teachers,
however, is incomplete; because of the nature of typical respondents, feedback is often
skewed to the extremes, both positive and negative. Due to logistics, little feedback is
obtained from administrators. A more complete, reliable, and thus, valid form of
feedback would give better information to Teacher Education Programs as they continue
to improve curricular offerings for pre-service teachers.

A feedback loop is to be established in selected PK-12 districts, which serve as pilot sites to provide teacher education programs with evaluations of classroom performance of new teachers. Evaluations are prepared by school principals or designated administrators. Once the feedback technology is in place at pilot sites, workshops are held throughout the state to train administrators at the pilot sites in the use of the feedback system.

Implementation of the system at the pilot sites follows. Then teachers' performance data will be sent to the Iowa Department of Education. It is then relayed anonymously to the respective teacher education programs at their requests. Following

analysis of the information, curricular and other teacher education program, changes are considered in light of teacher performance data provided by the feedback loop. Actions taken by the teacher education programs are reported to the Grant Director.

A year into implementation, the Grant Director conducts a formative evaluation of the efficacy of the feedback system, based on data collected at the pilot sites and transmitted to the teacher education programs. Drawing on the results of the evaluation, the Grant Director begins discussions with key lawmakers about introducing legislation that requires the state's K-12 districts to participate in the feedback loop to ensure continuous improvement in the quality of classroom instruction in Iowa schools. The Grant Director also provides results of teacher performance data analysis to Iowa Department of Education and Iowa Board of Educational Examiners for possible use in making recommendations for program improvements and changes in licensure.

Responsibility for this objective rests with superintendents and principals from PK-12 districts selected as pilot sites who then work with the Grant Director, the Grant Technology Director, and other members of the Teacher Education Task Force to develop a feedback loop connecting the pilot sites with Iowa teacher education programs. Teacher Education Task Force members organize and conduct workshops to train district personnel at pilot sites and teacher education programs faculty and administrators in the use of the feedback loop. The Steering Committee, key legislators, Iowa Department of Education administrators, and the Board of Educational Examiners receive the findings of the formative evaluation.

The 2<sup>nd</sup> objective of Goal #3 is supported by the current Teacher Education

Program Approval Review in Iowa which requires each institution to develop and
implement an assessment system that evaluates individual teacher education candidates
using program standards and performance indicators that reflect those standards. The
thoroughness of such assessment requires a complex system that is most efficiently
implemented in an electronic format. Such a format also makes reporting to the Iowa
Department of Education more efficient and, thus, effective. Inclusion of community
colleges in the technology-based assessment process of teacher education preparation is a
recognition of their formative role in content area preparation, field experience, initial
instructional practice, and development of appropriate dispositions. It will also ensure
some standardization of content and performance expectations for students who will
transfer to complete their teacher preparation. The cost of transferring an assessment
system, however, into an electronic format is prohibitive for some of the programs in the
state.

Grant money will enable individual Teacher Education Programs in four-year institutions and Pre-Teacher Education Programs in community colleges to establish electronic data systems for assessment of individual teacher education candidates as they progress through said programs. Aggregated information will be sent to the Department of Education in the form of annual reports; more detailed information will be available for the regular program review of each institution. Funds may be used for in-house development or for contractual arrangements with a professional data analysis company. Additionally, funds will be made available to the Iowa Department of Education to establish a data analysis system for more efficient and effective use of information

reported by the Teacher Education Programs. Smaller amounts may be requested by institutions that have developed a system and need only to establish an interface with the state system. The expectation is that with sufficient funds, all Teacher Education Programs will have electronic assessment systems in place at the end of the three year period.

Responsibility for this objective falls with the Grant Technology Director, with the advice of the Grant Steering Committee and Grant Director, who will issue an RFP for full and partial implementation awards to institutions and will accept bids for the Department of Education project. Chairs of individual programs will be responsible for the completion of their own assessment systems. The Grant Director will supply technical assistance as necessary and will be responsible for assuring that each institutional system is compatible with the state system.

The 3<sup>rd</sup> objective for Goal #3 is based on the identified issue that students who transfer between teacher education institutions can experience a less than seamless transfer. This problem has been identified by the team, and addressed with a program developed to align courses, beginning with one course in order to demonstrate the potential for this objective. Alignment will be based on national teacher preparation standards and will require indicators for performance objectives for each of the standards. Primarily the responsibility of the grant director, this program should be completed by October of 2008.

The 4<sup>th</sup> objective for Goal #3 is based on research which shows that teachers' dispositions are integral factors in effective teaching and, thus improved student learning.

The teacher program approval process in Iowa is based on three major components derived directly from the National Council for Accreditation of Teacher Education (NCATE) and the Teacher Education Accreditation Council (TEAC): content knowledge, teaching pedagogy, and teacher dispositions. Developing a solid system for assessment of dispositions has proven a challenge for Teacher Education Programs, as could be seen in the large number of presentations focusing on dispositions at a recent annual conference of the American Association of Colleges for Teacher Education (AACTE). Individual Teacher Education Programs throughout Iowa have wrestled with this complex factor; several have piloted and/or implemented the results of their work.

Community colleges, which offer field experiences to students, have not been included in this effort at all yet and have classes and programs which need to be brought up to appropriate performance preparation standards. A concentrated study of the effect of dispositions on student learning could provide needed recommendations to Teacher Education Programs and community college programs statewide, facilitating a more direct and conscious effort to assess this critical component of good teaching.

A study group will review national research on 1) the effect of teacher dispositions on student learning and 2) the development and assessment of dispositions in teachers and teacher education candidates. A Project Director will lead the group in collecting assessment tools, nationally and statewide. The material will be synthesized and recommendations will be shared statewide. Policy suggested by this study group could be incorporated into the program approval process; individual programs will determine specifically how they will assess dispositions and use that information in the

screening of teacher education candidates. Community colleges will contribute data from their students' progress in the first two years of preparation and will adapt their curricula and field experiences to align with the requirements of their transfer partners.

Additionally, the study group will make recommendations to the Board of Educational Examiners (BOEE) for their consideration in accepting licensure applications from individuals who have completed teacher education programs and/or been licensed in states other than Iowa.

The study group will be comprised of teacher practitioner educators from the Regents universities, private higher education institutions, and community colleges involved in pre-teacher education as well as K-12 educators who work with new teachers and student teachers. A Project Director will coordinate and facilitate the work of the group.

Goal #4 is based on the premise that communication and input is key to the success of this project. All stakeholders in the initiative will expect to receive an annual update on the status of the work funded by the Teacher Quality Enhancement Grant funds. The grant requires that the state applicant ensure a diversity of perspectives and that these perspectives are incorporated in to the operation of the project.

This plan provides for a Representative Council of stakeholders to come together annually at a statewide Summit and semi-annual meetings in regional locations for smaller groups. In order for the Representative Council to give their input and perspectives on the project, they will need to be kept informed of the work. These annual and semi-annual meetings will allow the grant director and staff to meet with all

involved to provide data, develop amendments when necessary, to share project status, and to describe on-going and future activities. In addition, stakeholders will have a forum to discuss and explore related issues and concerns that might impact the project in the future.

It will be the responsibility of the Grant Director, with the advice of the Grant Steering Committee to coordinate all Summit and quarterly meeting activities, communication, and follow-up.

Furthermore, Goal #4 provides for meeting future challenges through collaboration by preparing new teachers to meet the educational challenges for the twenty-first century. Objectives to this goal include building a consensus on articulated and aligned content standards and skills to utilize in preparing Iowa's future teachers. The effectiveness of this aspect of the plan will be measured through documentation of meetings, website changes, and reports. Surveys and/or interviews of project stakeholders to determine changes in communication, collaboration, and articulated and aligned content standards and skills.

# B. THE EXTENT TO WHICH THE PROJECT HAS AN EFFECTIVE, INCLUSIVE, AND RESPONSIVE GOVERNANCE STRUCTURE

As indicated in the work plan, nearly every aspect of this program involves a collaborative effort by all stakeholders associated with new teacher education. This along with the intensive evaluation and feedback plan performed by an outside contractor insures the management structure will have effective and unbiased feedback. The

publication piece also insures that the structure will be responsive to stakeholders and team members. Also, the original team associated with this proposal is committed to continuing the culture of inclusiveness that was developed as a result of creating this project. The steering committee is committed to monthly meetings and will be empowered to organize the agenda which will lead decisions in consultation with the grant director and key officials from the Iowa Department of Education, Governors office, and other higher educational organizations.

### C. QUALIFICATIONS OF KEY PERSONNEL ASSOCIATED WITH THE PROJECT

In the appendix section of this proposal, job descriptions and biographies of key participants are listed. They indicate an appropriate level of expertise to see this program through to a successful conclusion.

#### V. STATUTORY PROVISION/COMPETITIVE PREFERENCE

Initiatives to reform state preparation for teacher licensure so that current and future teachers possess stronger teaching skills and content knowledge in the subject areas they are certified to teach are contained in this grant proposal. They include:

- 1. New models and training in reading and writing in high school content areas
- 2. New models and training in middle school math, science, and reading
- Training of teacher preparation faculty and students to implement strategies for supporting P-12 English Language learners

- Access to English Language Learner/populated classrooms through innovative strategies including direct feed and video conferencing for observation and classroom strategy presentations
- Alignment and articulation of content and education coursework among two and four-year institutions and between four-year institutions enabling a seamless transition state-wide
- 6. Assessment of dispositions necessary for new teachers to be effective in the classroom
- Reporting of progress annually to the Director of the Iowa Department of Education regarding content standards

A second component relates to innovative reforms to enhance the ability of teacher education programs in making programmatic changes using performance based data. These changes will better prepare new teachers who are highly competent in academic content areas and who have strong teaching skills. They include:

- Reform of teacher candidate assessment data gathering, management, analysis, and reporting to improve teacher education program performance
- 2. Reform of student teacher assessment data gathered in a statewide feedback loop to improve teacher education program performance
- 3. Reform of new teacher assessment data gathered in a statewide feedback loop to improve teacher education program performance

- Policy reforms by the Department of Education in accreditation of Practitioner
   Preparation Program
- 5. Inclusion of community colleges in the data feedback loop to improve their preprofessional programs
- 6. Reporting of progress to the Director of the Iowa Department of Education and the State Board of Education

#### **Preference for Enterprise Communities**

The Des Moines Public School District is designated as an Enterprise

Community. The District will be involved with this initiative in a partnership that will help move it and the community in which it is located, to a higher level of revitalization.

Involving the district in the activities that aim to better prepare its new teachers, its relationship with area institutions of higher education, and to connect the classroom with learning of its future teachers will indeed serve to give depth and breadth to the Enterprise Community program.

The Enterprise Community Program seeks to empower communities by supporting local plans that coordinate economic, physical, environmental, community, and human development. A community where learning is a commitment for life can foster the skills, habits of mind, and attitudes that will make work rewarding and families nurturing.